

Form PTO-1449 (Modified)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

20060/10001C

Serial No.

10/806,863

Applicant

David A. Goldman

Filing Date

3/23/04

Group Art Unit

3765

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

*Examiner Initials		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
BK	A01	5,270,939	12/14/1993	Goldberg et al.			
BK	A02	5,323,722	6/28/1994	Goto et al.			
BK	A03	5,430,658	7/4/95	Divinsky et al.			
BK	A04	5,444,640	8/22/95	Hirai			
BK	A05	5,510,994	4/23/1996	Tsonis et al.			
BK	A06	5,559,771	9/24/1996	Kim			
BK	A07	5,576,968	11/19/96	Mizuno et al.			
BK	A08	5,668,730	9/16/97	Tsonis et al.			
AK	A9	5,740,056	04/14/1998	Futamura et al.			
AK	A10	5,751,583	5/12/1998	Kyuno et al.			
AK	A11	5,791,271	8/11/1998	Futamura			
AK	A12	5,911,182	6/15/1999	Uyama et al.			
	A13						
	A14						
	A15						
	A16						
	A17						
	A18						
	A19						
	A20						
	A21						

EXAMINER

A. K. Kim

DATE CONSIDERED

1/14/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 20060/10001C	Serial No. 10/806,863
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant David A. Goldman	
		Filing Date 3/23/04	Group Art Unit 3765

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
Bk	C01	Gunilla Borgefors, <i>Distance Transformations in Digital Images</i> , 34 Computer Vision Graphics, and Image Processing, pp 334-371 (1986)
Bk	C02	Gabriella Sanniti Di Bata et al., (3,4) <i>Weighted Skeleton Decomposition for Pattern Representation and Description</i> , 27 Pattern Recognition, pp 1039-1049 (1994)
Bk	C03	David S. Doermann et al., <i>The Interpretation and Reconstruction of Interfering Strokes</i> , pp 41-51
Bk	C04	Robert M. Haralick et al., <i>Glossary of Computer Vision Terms</i> , 24 Pattern Recognition, pp 69-93 (1991)
Bk	C05	Oivind Due Trier et al., <i>Feature Extraction Methods for Character Recognition—A Survey</i> , 29 Pattern Recognition pp 641-661 (1996)
Bk	C06	Narendra Ahuja and Jen-Hui, <i>Shape Representation Using a Generalized Potential Field Model</i> , 19 IEEE Transactions On Pattern Analysis and Machine Intelligence 169-176 pp (1997)
Bk	C07	Carlo Arcelli et al., <i>A One-Pass Two-Operation Process to Detect the Skeletal Pixels on the 4-Distance Transform</i> , 11 IEEE Transactions On Pattern Analysis and Machine Intelligence pp 411-414, 4/98
Bk	C08	Herbert Freeman et al., <i>A Corner-Finding Algorithm for Chain-Coded Curves</i> , IEEE Transactions on Computers, pp 297-303 (1997)
Bk	C09	Chia-We Liao and Jun S. Huang, <i>Stroke Segmentation by Bernstein-Bezier Curve Fitting</i> , 23 Pattern Recognition, pp 478-484 (1990)
Bk	C10	Shigehehiro Fukushima, <i>Division-Based Analysis of Symmetry and Its Application</i> , 19 IEEE Transactions On Pattern Analysis and Machine Intelligence, pp 144-148
Bk	C11	Remi Ronford, <i>Region-Based Strategies for Active Contour Models</i> , 13 International Journal of Computer Vision, pp 229-251 (1994)
Bk	C12	I.S.I. Abuhaiba et al., <i>Processing of Binary Images of Handwritten Text Documents</i> , pp 1161-1177 (1996)
Bk	C13	Stefan Carlsson, <i>Projectively Invariant Decomposition and Recognition of Planar Shapes</i> , 17(2) International Journal of Computer Vision, pp 193-209 (1996)
Bk	C14	Richard C. Staunton, <i>An Analysis of Hexagonal Thinning Algorithms and Skeletal Shape Representation</i> , 29 Pattern Recognition, pp 1131-1146 (1996)
Bk	C15	Fernando Rannou et al., <i>Equilateral Polygon Approximation of Closed Contours</i> , 29 Pattern Recognition, pp 1105-1115 (1996)
Bk	C16	Benjamin B. Kimia et al., <i>Shapes Shocks, and Deformations I: The Components of Two-Dimensional Shape and the Reaction-Diffusion Space</i> , 15 International Journal of

EXAMINER

A. K.


DATE CONSIDERED

1/14/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.


Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 20060/10001C	Serial No. 10/806,863
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant David A. Goldman	
		Filing Date 3/23/04	Group Art Unit 3765

BK		Computer Vision, pp 189-224 (1995)
BK	C17	Gideon Guy et al., <i>Inferring Global Perceptual Contours From Local Features</i> , 20 International Journal of Computer Vision, pp. 113-133 (1996)
BK	C18	Roberto Marcondes Cesar Junior et al., <i>Towards Effective Planar Shape Representation With Multiscale Digital Curvature Analysis Based on Signal Processing Techniques</i> , 29 Pattern Recognition, pp 1559-1569 (1996)
BK	C19	Paul C. K. Kwok, <i>A Thinning Algorithm by Contour Generation</i> , 31 Communications of the ACM, pp 1314-1324 (1988)
BK	C20	Paul L. Rosin et al., <i>Segmentation of Edges Into Lines and Arcs</i> , Image and Vision Computing, pp 109-114 (1989)
BK	C21	Hirobumi Nishida, <i>Structural Feature Extraction Using Multiple Bases</i> , 62 Computer Vision and Image Understanding, pp 78-89 (1995)
BK	C22	G.A.W. West et al., <i>Techniques for Segmenting Image Curves Into Meaningful Descriptions</i> , 24 Pattern Recognition, pp 643-652 (1991)
BK	C23	Wenhua Wan et al., <i>Segmentation of Planar Curves into Straight-Line Segments and Elliptical Arcs</i> , 59 Graphical Models and Image Processing, pp 484-494 (1997)
BK	C24	Ju Jia Zou et al., <i>Skeletonization of Ribbon-Like Shapes Based on Regularity and Singularity Analyses</i> , 31 IEEE Transactions on Systems, Man, and Cybernetics-Part B: Cybernetics (2001)
BK	C25	Hirobumi Nishida, <i>Structural Feature Indexing for Retrieval of Partially Visible Shapes</i> , 35 Pattern Recognition, pp 55-67 (2002)
BK	C26	Ji-Rong Lin et al., <i>Stroke Extraction for Chinese Characters Using a Trend-Followed Transcribing Technique</i> , 29 Pattern Recognition, pp 1789-1805
BK	C27	M. Pilar Martinez-Perez et al., <i>A Thinning Algorithm Based on Contours</i> , 39 Computer Vision, Graphics, and Image Processing, pp 186-201 (1987)
BK	C28	Elyse H. Milun et al., <i>General Ribbon-Based Thinning Algorithms for Stylus-Generated Images</i> , 76 Computer Vision and Image Understanding, pp 267-277 (1999)
BK	C29	Irwin Sobel, <i>Neighborhood Coding of Binary Images for Fast Contour Following and General Binary Array Processing</i> , 8 Computer Graphics and Image Processing, pp 127-135 (1978)
BK	C30	C.A. Rothwell, et al., <i>Planare Object Recognition Using Projective Shape Representation</i> , 16 International Journal of Computer Vision, pp 57-99 (1995)
BK	C31	I.S.I. Abuhaiba et al., <i>Fuzzy State Machines to Recognize Totally Unconstructed Handwritten Strokes</i> , 13 Image and Vision Computing, pp 755-769 (1995)
BK	C32	Serban Iliescu et al., <i>Proposed Heuristic Procedures to Preprocess Character Patterns</i>

EXAMINER 	DATE CONSIDERED 1/19/05
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance <u>and</u> not considered. Include copy of this form with next communication to applicant.	


Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 20060/10001C	Serial No. 10/806,863
INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i>		Applicant David A. Goldman	
		Filing Date 3/23/04	Group Art Unit 3765

AK		Using Line Adjacency Graphs, 29 Pattern Recognition, pp 951-969 (1996)
AK	C33	Fu Chang et al., <i>Feature Analysis Using Line Sweep Thinning Algorithm</i> , 21 IEEE Transactions on Pattern Analysis and Machine Intelligence, pp 145-158 (1996)
AK	C34	Hyeong In Choi et al., <i>New Algorithm for Medial Axis Transform of Plane Domain</i> , 59 Graphical Models and Image Processing, pp 463-483 (1997)
AK	C35	Toshiyuki Imai, <i>A Topology-Oriented Algorithm for Voronoi Diagram of Polygons</i> .
AK	C36	Martin Held, <i>VRONI: An Engineering Approach to the Reliable and Efficient Computation of Voronoi Diagrams of Points and Line Segments</i> , 18 Computational Geometry, pp 95-123 (2001)
AK	C37	Kokichi Sugihara, <i>A Robust Topology-Oriented Incremental Algorithm For Voronoi Diagrams</i> , 4 International Journal of Computational Geometry and Applications, pp 179-228 (1994)
AK	C38	Nikolaos G. Bourbakis, <i>A Rules Based Scheme for Synthesis of Texture Images</i> , pp 999-1003
AK	C39	Takashi Ida et al., <i>Self-Affine Mapping System and Its Application to Object Contour Extracation</i> , 9 IEEE Transactions On Image Processing, pp 1926-1936 (2000)
AK	C40	Takashi Ida et al., <i>Self-Affine Mapping System for Object Contour Extraction</i> , pp 250-254 (2000)
AK	C41	Wei-Ying Ma et al., <i>Edge Flow: A Technique for Boundary Detection and Image Segmentation</i> , 9 IEEE Transactions on Image Processing, pp 1375-1387 (2000)
AK	C42	Giancarlo Iannizzotto et al., <i>Fast and Accurate Edge-Based Segmentation With No Contour Smoothing in 2-D Real Images</i> , 9 IEEE Transactions On Image Processing, pp 1232-1237 (2000)
AK	C43	Tony F. Chan et al., <i>Active Contours Without Edges</i> , 10 IEEE Transactions On Image Processing, pp 266-277 (2001)
AK	C44	Mary L. Comer et al., <i>The EM/MPM Algorithm for Segmentation of Textured Images: Analysis and Further Experimental Results</i> , 9 IEEE Transactions on Image Processing, pp 1731-1744 (2000)
AK	C45	Gerard J. Genello et al., <i>Graeco-Latin Squares Design for Line Detection in the Presence of Correlated Noise</i> , 9 IEEE Transactions On Image Processing, pp 609-622 (2000)
AK	C46	Michael K. Schneider et al., <i>Multiscale Methods for the Segmentation and Reconstruction of Signals and Images</i> , 9 IEEE Transactions On Image Processing, pp 456-467 (2000)
AK	C47	Mario A. T. Figueiredo, <i>Unsupervised Contour Representation and Estimation Using B-Splines and a Minimum Description Length Criterion</i> , p 1075-1087 (2000)
AK	C48	Mahmoud Ramze Rezaee et al., <i>A Multiresolution Image Segmentation Technique Based</i>

EXAMINER 	DATE CONSIDERED 4/14/05
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 20060/10001C	Serial No. 10/806,863
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant David A. Goldman	
		Filing Date 3/23/04	Group Art Unit 3765

BK		on Pyramidal Segmentation and Fuzzy Clustering, 9 IEEE Transactions On Image Processing, pp 1238-1248 (2000)
BK	C49	Aart Bik et al., <i>Efficient Exploitation of Parallelism on Pentium III and Pentium 4 Processor-Based Systems</i> , Intel Technology Journal Q1, pp 1-9 (2001)
BK	C50	Peter W. Shor et al., <i>Detecting and Decomposing Self-Overlapping Curves</i> , ACM, pp 44-50 (1989)
BK	C51	Louisa Lam et al., <i>Thinning Methodologies-A Comprehensive Survey</i> , 14 IEEE Transactions On Pattern Analysis and Machine Intelligence, pp 869-885 (1992)
BK	C52	Gabriella Sannti Di Baja, <i>Well-Shaped, Stable, and Reversible Skeletons from the(3,4)-Distance Transform</i> , 5 Journal of Visual Communication and Image Representation, pp 107-115 (1994)
BK	C53	S. Di Zeno, <i>Run-Based Algorithms for Binary Image Analysis and Processing</i> , 18 IEEE Transaction On Pattern Analysis and Machine Intelligence, pp 83-88 (1996)
BK	C54	H. Nishida et al., <i>Thin Line Representation From Contour Representation of Handprinted Characters</i> , Pixels to Features III: Frontiers in Handwriting Recognition, pp 29-39 (1992)
BK	C55	Richard G. Casey et al., <i>A Survey of Methods and Strategies in Character Segmentation</i> , 18 IEEE Transactions On Pattern Analysis and Machine Intelligence, pp 691-705 (1996)
BK	C56	Meir Barozhar et al., <i>Automatic Findind of Main Roads in Aerial Images by Using Geometric Stochastic Models and Estimation</i> , 18 IEEE Transactions On Patern Analysis and Machine Intelligence, pp 707 (1996)
BK	C57	David S. Doermann et al., <i>Recovery of Temporal Information From Static Images of Handwriting</i> , 15 International Journal of Computer Vision, pp 143-164 (1995)
BK	C58	Evan C. Sherbrooke et al., <i>Differential and Topological Properties of Medial Axis Transforms</i> , 58 Graphical Models and Image Processing, pp 574-592 (1996)
BK	C59	G.F. McLean, <i>Geometric Correction of Digitized Art</i> , 58 Graphical Models and Image Processing, pp 142-154 (1996)
BK	C60	Hsin-Teng Sheu et al., <i>A Rotationally Invariant Two-Phase Scheme For Corner Detection</i> , 29 Pattern Recognition, pp 819-828 (1996)
BK	C61	Magdi Mohamed et al., <i>Handwritten Word Recognition Using Segmentation-Free Hidden Markov Modeling and Segmentation-Based Dynamic Programming Techniques</i> , 18 IEEE Transactions On Pattern Analysis and Machine Intelligence, pp 548-554 (1996)
BK	C62	Hirobumi Nishida, <i>Model-Based Shape Matching With Structural Feature Grouping</i> , 17 IEEE Transactions on Pattern Analysis and Machine Intelligence, pp 315-320 (1995)
BK	C63	Steven Gold et al., <i>A Graduated Assignment Algorithm for Graph Matching</i> , 18 IEEE

EXAMINER 	DATE CONSIDERED 1/14/05
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance <u>and</u> not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 20060/10001C	Serial No. 10/806,863
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant David A. Goldman	
		Filing Date 3/23/04	Group Art Unit 3765

BK		Transactions On Pattern Analysis and Machine Intelligence, pp 377-388 (1996)
BK	C64	Jianying Hu, <i>A Hierarchical Approach to Efficient Curvilinear Object Searching</i> , pp 208-220 (1996)
BK	C65	Paul L. Rosin, <i>Augmenting Corner Descriptors</i> , 58 Graphical Models and Image Processing, pp 286-294 (1996)
BK	C66	Panagiotis G. Tzionas et al., <i>Collision-Free Path Planning for Diamond-Shaped Robot Using Two-Dimensional Cellular Automata</i> , 13 IEEE Transactions On Robotics and Automation, pp 237-250 (1997)
BK	C67	Hirobumi Nishida, <i>A Structural Model of Curve Deformation by Discontinuous Transformations</i> , 58 Graphical Models and Image Processing, pp 164-179 (1996)
BK	C68	Ramanujan S. Kashi et al., <i>2-D Shape Representation and Averaging Using Normalized Wavelet Descriptors</i> , 66 Simulation, pp 164-178 (1996)
BK	C69	Shy-Shyan et al., <i>Skeletonization for Fuzzy Degraded Character Images</i> , 5 IEEE Transactions On Image Processing, pp 1481-1485 (1996)
BK	C70	Paul L. Rosin et al., <i>Nonparametric Segmentation of Curves Into Various Representations</i> , 17 IEEE Transactions On Pattern Analysis and Machine Intelligence, pp 1140-1153 (1995)

EXAMINER <i>A.K.</i>	DATE CONSIDERED 1/15/05
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance <u>and</u> not considered. Include copy of this form with next communication to applicant.	